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EXAMINER

MAYO III, WILLIAM H

ART UNIT PAPER NUMBER

2831

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BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES

Paper No. 18

Application Number: 09/295,212  
Filing Date: April 21, 1999  
Appellant(s): MELLARDO, JOHN

\_\_\_\_\_  
Paul A Schwarz  
For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed September 24, 2002.

**(1) *Real Party in Interest***

A statement identifying the real party in interest is contained in the brief.

**(2) *Related Appeals and Interferences***

A statement identifying the related appeals and interferences, which will directly affect or be directly affected by or have a bearing on the decision in the pending appeal is contained in the brief.

**(3) *Status of Claims***

The statement of the status of the claims contained in the brief is correct.

**(4) *Status of Amendments After Final***

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

**(5) *Summary of Invention***

The summary of invention contained in the brief is correct.

**(6) *Issues***

The appellant's statement of the issues in the brief is correct.

**(7) *Grouping of Claims***

Appellant's brief includes a statement that claims 1-9 do not stand or fall together and provides reasons as set forth in 37 CFR 1.192(c)(7) and (c)(8).

**(8) Claims Appealed**

The copy of the appealed claims contained in the Appendix to the brief is correct.

**(9) Prior Art of Record**

4,483,395	KRAMER et al.	NOVEMBER 20, 1984
4,913,239	BAYH, III	APRIL 3, 1990

**(10) Grounds of Rejection**

The following ground(s) of rejection are applicable to the appealed claims:

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bayh, III (Pat Num. 4,913,239) in view of Kramer et al (Pat Num. 4,483,395, herein referred to as Kramer). Bayh, III disclose an apparatus (i.e. cable arrestor, Figs 1-6) in combination with an energized-fluid conduit (Col. 1, lines 35-40) which houses a conduit (20-Fig 1) for transporting the energized fluid conduit (Col. 1, lines 35-40); a plurality of power conductors (88, 89, & 90-Fig 2C) confined within the conduit (20) and means (45-Fig 1) removable fixed to the conduit (20-Col 4, lines 1-4) for holding the power conductors (88, 89, & 90) in a spaced apart disposition across the conduit (20). With respect to claim 2, Bayh, III discloses that the means (45) comprises a means (i.e.

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platform-Fig 3A) for bridging across an intermediate portion of the conduit (20). With respect to claim 3, Bayh, III discloses that the bridging means comprises a platform (Fig 6) having conduit-engaging supports (Fig 3A, 37, 38, i.e. brackets). With respect to claim 4, Bayh, III discloses that the bridging means comprises an aperture platform (Fig 6), threaded pipe couplers (bottom of Fig 3A), which are in fixed alignment with the apertures (where the power conductors are located) and brackets (37, 38) for removably fixing the platform (Fig 6) across the conduit (20, Col. 4, lines 1-4). With respect to claim 6, Bayh, III discloses that the power conductors (88, 89, & 90) terminate in a threaded pipe (Fig 3A) and the pipes are threaded engaged with pipe couplers (see Fig 3B). With respect to claim 7, Bayh, III discloses that there exist a means (128, 129, & 130) engaged with the power conductors (88, 89, & 90) for strain relieving the conductors (Col. 6, lines 52-57). With respect to claim 8, Bayh, III discloses that there exist a means (70, i.e. pump) in the form of control devices for energizing the fluid with the conduit (20) and wherein the power conductors (88, 89, & 90) are coupled to the control devices (Col. 4, lines 9-11). With respect to claim 9, Bayh, III discloses that the cable arrestor (Fig 1) further includes an axial pump (70) wherein the power conductors (88, 89, & 90) terminate in a threaded pipe fittings (Fig 3A) and the pump (70) has a thread pipe coupler (71) in which is threaded to receive a sheathing pipe fitting (see Fig 2F).

However, Bayh, III doesn't necessarily disclose that the means is removably fixed to the wall surface of the conduit (claim 1), nor the cable being jacketed with a sheath (claims 5-6 and 9).

Kramer (Pat Num. 4,483,395) teaches an wire guard (Figs 1-4) which may be used in a fluid conduit (i.e. well casing, Col. 1, lines 5-12) comprising a bridging means (10) having spaced apertures (30) for separating the conductors (17), that is attached to the wall surface within conduit (12) by rectangular tabs that project outward (Cols. 2-3, lines 67-68 & 1-5) for the purpose of attaching drop pipes, wires, and cables to a well bore pump (15) and providing protection for the drop pipes, wires, and cables, from abrasion against the inner surface of the well casing (Col. 1, lines 33-36).

With respect to claim 1, it would have been obvious to one having ordinary skill in the art of cables at the time the invention was made to modify the bridging means of Bayh, III to comprise the bridging means as taught by Kramer because Kramer teaches that such a configuration provides protection from abrasion against the inner surfaces of the conduit (Col. 1, lines 33-36) and provides a simple and inexpensive construction that functions in a more efficient manner than any comparable device (Col 3, lines 60-65).

With respect to claims 5-6 and 9, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the cable of modified Bayh, III to be made with an outer protective sheath, since it is well known in the art of underwater cables that outer sheaths are utilized for protecting the inner conductors of the from external forces and corrosion.

**(11) Response to Argument**

Applicant's arguments filed September 24, 2002 have been fully considered but they are not persuasive. The applicant argues the following:

- A) The examiner has failed to establish a prima facie case of obviousness because there is no motivation for combining the teaching of Bayh and Krammer in the manner proposed.
- B) Replacing the electrical connector of Bayh with the wire guard of Krammer would render Bayh inoperative because Bayh and Krammer do not describe the same type of conduits. Bayh utilizes a connector in a casing that conducts energized fluids and Krammer utilizes a wire guard in a casing that doesn't conduct energized fluids.
- C) Bayh in view of Krammer fails to teach or suggest the claim limitations of claim 4, specifically, Bayh in view of Krammer fail to teach or suggest threaded pipe couplers in fixed alignment with apertures in the platform and brackets for removably fixing the platform across the conduit.
- D) Bayh in view of Krammer fail to teach or suggest means for strain relieving the cables, because there is no disclosure in Bayh that electrical penetrators function to strain relieve the conductors.
- E) Bayh in view of Krammer fails to teach or suggest the power cables being coupled to the fluid energizing means because the electrical penetrators 128, 129, and 130 relied upon by the examiner are not power cable elements.

With respect to argument A, the examiner respectfully traverses. Firstly, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, both Bayh and Kramer teach connectors for a cable suspended in a wellbore and attached to a submersible well pump. Specifically, Bayh discloses a well casing having a submersible pump and power cables to provide electrical energy to operate the pump (see Col 1, lines 35-40) wherein a connector (45) is utilized to separate the conductors for connection to the electrical motor (50) on the pump (see Col 2, lines 1-11) and Kramer teaches a wire guard which is utilized with a conventional well casing (see Col 1, lines 5-7 & 65-68) wherein the well casing also has a submersible pump (15) that is connected to electrical conductors (17) which extends also through the wire guard (i.e. connector). As shown by the above statements, both Bayh and Krammer disclose connectors (i.e. wire guards) that anchor the conductors of cables suspended in the well (see Figs1 in both references). However, Bayh doesn't necessarily teach the connector being removably fixed to the wall surface of the conduit. Kramer teaches that having such a connector configuration provides protection from abrasion against the inner surfaces of the conduit (Col. 1, lines 33-36) and provides a simple and inexpensive construction that functions in a more efficient manner than any comparable device (Col 3, lines 60-65). Clearly,



based on the teaching of Krammer, it would have been obvious to modify Bayh to comprise a connector being removably fixed to the wall surface of the conduit, in order to provide the conductors of Bayh with protection from abrasion against the inner surfaces of the conduit, wherein the configuration as taught by Kramer is simple, inexpensive and functions in a more efficient manner than any comparable device, such as the connector of Bayh. Therefore, there does exist a teaching and motivation for modifying the connector of Bayh as taught by Krammer. In stating such, all three conditions for establishing a clear prima facie case of obviousness are present. (1) Clearly, as stated above there exist a motivation for combining the teachings of both Bayh and Krammer. (2) Clearly, there exist a reasonable amount of success, since the connectors of both Bayh and Krammer are utilized in well casings, in which the conductors of the cables are attached to submersible pumps. (3) And lastly, the combined references teach and suggest all of the claim limitations disclosed above with respect to claims 1-9. In view of the above comments, the examiner willfully submits that the 35 USC 103 rejection is proper and just.

With respect to argument B, the examiner respectfully traverses. The examiner agrees with the statement that Bayh utilizes a connector in a casing that conducts energized fluids. However, the examiner respectfully disagrees that Krammer utilizes a wire guard in a casing that doesn't conduct energized fluids. Specifically, Krammer clearly states that the wire guard device may be utilized in a conventional well casing that utilizes a pump (Fig 1). Clearly, while Krammer is silent on whether the well casing does or doesn't conduct energized fluids, it is known in the art that well casings are

utilized to enclose fluids (i.e. gas, water, oil, etc) within the well and that the pump is utilized to pump the fluids upward to a destination. As defined by "Ask Jeeves" Web Site (see exhibit A),

--Well is defined as a pit or hole sunk into the earth to reach a supply of water or a shaft or hole sunk to obtain oil, brine, or gas

--Casing is defined as (1) to enclose or cover with or as if with a case (ENCASE) or (2) to line (as a well) with supporting material (as metal pipe).

--Pump is defined as (1) a device that raises, transfers, or compresses fluids...

Clearly, by the definitions stated above, a conventional well casing is a metallic casing inside a well which has some type of fluid and the pump is utilized to raise or transfer that fluid, therefore clearly Krammer also utilizes the wire guard in a casing that does conduct energized fluids. Secondly, the examiner respectfully submits that the test for obviousness is not whether the features of a secondary reference may be bodily incorporated into the structure of the primary reference; nor is it that the claimed invention must be expressly suggested in any one or all of the references. Rather, the test is what the combined teachings of the references would have suggested to those of ordinary skill in the art. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981). In this case, as disclosed above, Kramer clearly teaches that having such a connector configuration provides protection from abrasion against the inner surfaces of the conduit (Col. 1, lines 33-36) and provides a simple and inexpensive construction that functions in a more efficient manner than any comparable device (Col 3, lines 60-65) and based on these teaches of Krammer, it would have been obvious to modify Bayh to comprise a

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connector being removably fixed to the wall surface of the conduit, in order to provide the conductors of Bayh with protection from abrasion against the inner surfaces of the conduit, wherein the configuration as taught by Kramer's simple and inexpensive and functions in a more efficient manner than any comparable device, such as the connector.

With respect to argument C, the examiner respectfully traverses. As stated above in the rejection of claim 4, Bayh discloses that the bridging means (i.e. connector) comprises an aperture platform (Fig 6), threaded pipe couplers (bottom of Fig 3A), which are in fixed alignment with the apertures (where the power conductors are located) and brackets (37, 38) for removably fixing the platform (Fig 6) across the conduit (20, Col. 4, lines 1-4). While the platform is circular and the brackets (37 & 38) are located near the top of the connector platform, the claim limitations are met because that applicant hasn't specified otherwise. Therefore, claim 4 as recited, is disclosed by Bayh.

With respect to argument D, the examiner respectfully traverses. The examiner respectfully disagrees with the applicant's statement that "Bayh in view of Krammer fail to teach or suggest means for strain relieving the cables, because there is no disclosure in Bayh that electrical penetrators function to strain relieve the conductors". Bayh clearly states in Col 6, lines 52-65 that

"the various components of the downhole completion are held in alignment and against rotation by a fully made up threaded joints between various sections..."

Bayh also states that

"... once fully assembled, no relative rotation is possible between the motor 50, pump 70, and cable 30 to protect the electrical conductors 88, 89, and 90 between the cable 30 and motor."

Therefore Bayh clearly teaches a means for strain relieving the conductors.

With respect to argument E, the examiner respectfully traverses. Clearly, the examiner made a typographical error (at page 3, line 8, in paper number 15), and intended to denote the conductors of the cable by the reference numbers (88, 89, and 90) as stated in previous lines of the paper number 15 (see paragraph 2, lines 6 and 8, as well as page 3, lines 2 & 5, respectively), mailed May 21, 2002. As shown in the drawings, and stated by Bayh, in Column 6, lines 50-55, the electrical penetrators 128, 129, and 130 are disposed in hollow sleeve (46) for electrical engagement with conductors (88, 89, and 90) respectively. The electrical conductors (88, 89, and 90) of the power cables are clearly coupled to electrical motor (50) of the fluid energizing means (i.e. pump) as stated in Col 4, lines 9-11. Therefore, Bayh clearly discloses the claimed limitations of claim 9 as disclosed above in the rejection with respect to claim 9.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

 11/18/02

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WHM III  
November 16, 2002

Conferees

An appeal conference was held on Thursday, November 14, 2002 by the following:

Dean Reichard (SPE)



Olik Chaudhuri (SPE)



William H. Mayo III (Examiner)



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